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SWITZERLAND.

BASEL.

By Consul Philip Holland, July 22, 1919.

The year 1918 was one of uncertainty and suspense for the Basel district. As the war continued the commercial restrictions about Switzerland were tightened. The exports of some of the most important manufactures were regulated and limited by the Société Suisse de Surveillance Economique, referred to as the S. S. S., and by economic agreements between Switzerland and other countries.

The inland crops, especially the grain crops, most vegetables, potatoes, and hay, were good. The quality of the hay was unusually good, but that of the potatoes was inferior.

Industrial Activity—Banking Conditions Favorable.

Local industries, probably with the exception of a few that were directly affected by the war, had a good year. The Basel dye concerns were able to pay large dividends. The silk-ribbon manufacturers could not procure sufficient raw materials to supply their factories and were able to export only small quantities of the goods manufactured. Building construction ceased almost entirely, and toward the end of the year there was a scarcity of residences. The hotel industry suffered less in Basel than in some of the other Swiss cities.

Further reductions in the number of passenger and freight trains were made during the year; finally Sunday passenger traffic was discontinued, and there were no express trains whatever to and from Basel. Basel suffered through these reductions in traffic probably more than any other large city in Switzerland. With the expectation of increased traffic immediately following the war, extensive railroad yards were begun at Muttenz, near Basel. The construction of a much larger harbor than is at present being used in the Rhine at Basel was begun, and it is expected that it will be completed early in 1921.

Conditions were generally favorable for the banks. The position of certain mortgage banks which had made large loans in Germany and Alsace, payable in German marks, was weakened by the rapid and continual decrease in the value of the German mark. The Hypotekenbank (Mortgage Bank) in Basel was finally closed. Practically all the local banks were able to increase their capital during the year.

Foodstuffs Rationed—Wool Imports.

Switzerland was not able to import wheat from the eastern countries during the year and was entirely dependent upon oversea grains, chiefly from the United States. Delays in the arrival of American breadstuffs, after the agreement of December 5, 1917, and the sinking of a vessel loaded with wheat for Switzerland necessitated the reduction of the daily bread ration to 225 grams (8 ounces) to the person, the smallest allowance during the war. As flour instead of wheat was received, the flour mills were affected and the supply of animal food was reduced.

Oil and fat cards were instituted in the early part of the year in order to insure the proper distribution of these commodities, as they were imported under the direction of the four food syndicates controlled by the S. S. S. California evaporated fruits reached the market only in small quantities and were very dear in comparison with the fruits which were dried in unusually large quantities in Switzerland.

Difficulties were met with in the importation of wool. The rigid control by the S. S. S. made possible the importation of La Plata wool only in connection with other S. S. S. goods, and for every ship a license had to be obtained from the Interallied Bureau in London. Aside from this there were often long delays in transit, owing to congestion at the harbor in Cette. Spain was able to reexport South American wool to Switzerland at a fair profit, on account of the employment of Spanish tonnage and the difference in money values.

Raw Silk and Silk Ribbon.

In the spring of 1918 new difficulties were added to the delays in the importation of raw silk caused by the S. S. S. Italy prohibited the exportation of the Italian product to many raw-silk firms in Zurich and Basel, including some of the largest and most important firms. This affected the local industry some, but France soon began to deliver large quantities to Switzerland, though not sufficient to supply the demand. Delivery of Italian raw silk to these firms was begun again toward the end of the year.

Owing to export difficulties, the local ribbon factories were not able to operate to their full capacity. This caused the unemployment of many laborers, and toward the end of the year there was a surplus of raw silk. To facilitate proper defense against the increasing difficulties, all the local factories dealing in ribbons, silk, raw silk, by-products, and spun silk and the factories reworking silk by-products combined in January, 1918, under the name of the Basler Gesellschaft für Seidenindustrie (Basel Society of Silk Industry). Toward the end of the year all Swiss factories combined as the Schweizerischen Seidenbandfabrikantenverein (Swiss Association of Silk Manufacturers).

Since 1915 the trade with the United States in silk ribbons has been of little importance. There was a decrease of 332,569 pounds, or 38 per cent, in the quantity of schappe (spun silk) exported to the United States in 1918, compared with 1917, and a decrease in value of $651,810, or 23.1 per cent.

Other Branches of Silk Industry.

The dyeing industry, like other branches of the silk industry dependent upon export trade, suffered greatly during 1918. The apportionments of raw materials for dyeing were often too small and the necessary zinc, soaps, logwood, catechu, acids, dyes, and coal could not be procured. With a few exceptions the dyers were able to continue during the first half of the year. But in the second half they were affected by the prohibition of exportation of certain dyed materials to the Central States. Difficulties of transit through the Central States made exportation to small neutral countries almost impossible. The Federal Government prohibited the exportation of artificial silk.

The scarcity of coal added to the difficulties of the textile industry and threatens also to be a difficult problem in the future. Dressings suffered particularly through the scarcity of benzine. In the printing industry there was sufficient work to continue active during the entire year; the demand for cotton voile was so heavy that sufficient printing could not be done.

Aniline Colors and Extracts—Artificial Indigo.

There was a decrease of 1,209,848 pounds, or 38.8 per cent, in the quantity of the total color exports to the United States in 1918, compared with 1917, and a decrease in value of $1,326,899, or 36.4 per cent. There was, for the most part, sufficient raw material for the aniline color and extract industries, and the delivery of raw materials was, under the prevailing conditions, generally satisfactory. There was sufficient coal for the factories to continue operating. Toward the end of the year, however, the situation became so critical that all factories closed for two weeks in order to save coal.

Foreign competition, particularly that of the United States, was especially noticeable during the year. However, the demand for dyestuffs was satisfactory until the signing of the armistice, when orders immediately were discontinued. This condition did not affect prices materially, for raw materials were just as dear and difficult to procure as before. The labor situation became more acute through the continual demands of the laborers for better wages and shorter hours.

There was a heavy demand for synthetic indigo throughout the year, though the English and American factories were active in competition. It is generally believed, however, that with the overcoming of transport difficulties sufficient market will be found for the Swiss dyes and chemicals. Logwood was very scarce and dear throughout the year.

Consolidation of Chemical Companies.

The growing desire among chemical manufacturers to work more unitedly in order to overcome the difficulties subsequent to the war was finally realized in 1918, when the three chemical companies—the Society of Chemical Industry, J. R. Geigy A.-G., and the Sandez Chemical Works—consolidated for a period of 50 years. There was no consolidation of the stocks of the several companies. In order that there may be no appreciation or depreciation in the market

values of the stock of any one of the former companies, the dividends in the future are to be distributed to the stockholders of the several companies in proportion to their respective earnings for the past nine years. They will buy crude products and sell the finished products both separately and jointly, but always under a joint direction. The Clayton Aniline Works, of Clayton, near Manchester, England, formerly the property of the Society of Chemical Industry, became the property of the new company. The color formulas of all three companies were pooled, and the Clayton plant is to be enlarged and all dyes now made in Switzerland are to be manufactured also in England.

The technical branch of the chemical industry was marked by intensive work in all factories, and it was possible to work out formulas for several new products which are to be manufactured in the near future.

Pharmaceutical Products—Limited Supply of Iron.

The embargo placed on certain raw materials by the United States added to the difficulties of the pharmaceutical industry. In several cases, even after export licenses had been granted, the necessary tonnage could not be obtained. Inasmuch as a separate import license was necessary for each shipment of goods to the United States, there were often long delays and difficulties in the exportation of pharmaceuticals. Exportation to the northern neutrals was also very difficult and for a time impossible. Eventually facilities were given by England and France for transportation. With few exceptions the foreign demand decreased throughout the year, owing especially to the increased production in other countries.

Switzerland has always received most of its iron from Germany, Lorraine, and the Saar district. It was almost impossible to get sufficient iron during the year to keep all the shops working, owing principally to the inability of Germany to produce and deliver it. When the armistice was signed and Alsace-Lorraine, the Saar district, and the Palatinate were occupied by the French Army, France took charge of the mines, declared all German export licenses void, and forbade for the time being further exportation. The production in the Rhineland, Westphalia, and Silesia was also hampered by the revolution in Germany and the local strikes; hence only a few carloads of iron reached Switzerland from those districts from the middle of November till the end of the year. The import of iron was about 30 per cent less in 1918 than in 1917.

Conditions in Electrical Industry.

There was little change in the condition of the electrical industry during the year. The demand for small and moderately large machines remained satisfactory, though the unfavorable rates of exchange and the regulations placed upon importation of electrical manufactures by other countries made exportation to these countries difficult. As most of the orders in other countries were for war purposes, the industry was affected by the signing of the armistice, and a short period of inactivity set in. Germany took immediate steps to insure to its own industry the possibility of reestablishing trade and to avoid further debts in foreign countries by granting as few import licenses as possible. It was often very difficult to get sufficient

raw materials for certain branches of industry, especially dynamo lead for transformers and nickeline, as these materials were needed in the war industries in belligerent countries. The future of the Swiss electrical industry is largely dependent upon export trade, and its success depends upon the possibility of getting the necessary raw materials at reasonable prices and in sufficient quantities. The electrification of the Federal Railways will for a time help to tide over the electrical industry.

Trade with the United States.

There was a heavy demand throughout the year for American goods. This demand will continue so long as the American exporters will deal directly with the Swiss importer. The greatest drawback to American-Swiss trade is the lack of large Swiss jobbing houses for purchasing in quantities and redistributing to the retailer. As Switzerland is a small country, imports are effected by the retailers themselves as purchases are made from the jobbers in London, Paris, Antwerp, and Hamburg. There has always been a larger volume of American business with Switzerland than has been shown by statistics, but this business has been indirect and through the jobbers in other European countries. Very naturally other countries sell their own goods first and American goods are sold only when European products will not suffice. The American exporters should deal direct with the Swiss merchant if they desire to cultivate the Swiss trade.

Below is a comparative statement of the quantity and value of declared exports from Basel to the United States for the past two years:

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value
Drugs and chemicals	.....	$299,167	.....	$190,975
Dyestuffs:				
Aniline colors.....pounds..	1,588,542	2,587,618	1,121,853	1,918,520
Artificial indigo.....do....	1,532,100	1,048,226	788,941	390,425
Schappe (spun silk).....do....	875,346	2,792,936	542,777	2,141,126
Watches and parts:				
Watches, complete.....number..	103,253	66,184	84,423	92,303
Watch jewels.....do....	2,573,998	85,406	2,225,516	113,097
Watch movements.....do....	168,660	158,270	346,528	283,665
All other articles	.....	187,965	.....	48,382
Total	.....	7,225,772	.....	5,178,493

BERNE.

By Consul William P. Kent, June 25, 1919.

During the fourth year of war the economic standing of Switzerland remained relatively good. Owing to the cooperation of statesmen, industrials, and business people, almost a compact running of the Swiss economical life, its industries, and its organizations was possible. However, the armistice between the Allied countries and the Central Powers in November, 1918, considered as the turning point of the year, did not bring the expected relief, owing to Switzerland's dependence upon neighboring States and to the effects of the German revolution.

The close cooperation between the Government, the banks, and the industrial centers with particular reference to credits and protective

laws helped Switzerland to overcome the general crisis created by the war.

Further Increase in Cost of Living.

The cost of living made a further advance, as shown by the following data issued by the Federal Statistical Office:

Articles.	Unit of quantity.	Prices.			Percentage of increase from April, 1914, to October, 1918.
		April, 1914.	December, 1917.	October, 1918.	
Lard, Swiss	Pound	$0.19	$0.67	$1.15	500
Fresh eggs	Piece	.02	.07	.12	500
Anthracite	220 pounds	.96	2.78	5.48	470
Coke	do	.92	2.41	4.63	400
Bacon, smoked	Pound	.25	.67	1.16	365
Kidney grease, fresh	do	.13	.58	.58	345
Pork, fresh	do	.23	.54	.86	275
Potatoes, Swiss	220 pounds	1.93	3.47	5.79	200
Sugar, in squares	Pound	.05	.14	.16	220
Corn flour	do	.03	.07	.08	165
Macaroni, spaghetti, etc	do	.05	.13	.14	180
Beef (with bones)	do	.19	.34	.44	130
Butter	do	.34	.59	.75	120
Bread	do	.03½	.07	.07¼	110
Cheese	do	.21	.33	.40	90
Flour	do	.04¼	.08	.08	80
Milk	Liter	.04¼	.06¾	.07	50

The average increase on commodities necessary for subsistence from 1914 up to 1918 is 257 per cent.

Most of the foodstuffs were rationed, including bread, grease, sugar, rice, macaroni, and cheese. The Swiss Government, in cooperation with the Cantons, provided for special subsidies to reduce the price of flour and milk. From May, 1917, until August, 1918, the subsidies advanced to lower the price of milk amounted to about $1,400,000, of which about half was borne by the communities and cities. The same amount was expended to lower the price of bread.

Agricultural Situation Favorable.

The agricultural situation is rather favorable. The farmers have had good crops the past few years, particularly during 1918, and their products find a ready market at high prices. The following table shows the increase in the area planted to grain in Switzerland in 1918, compared with 1917, and the production in 1918:

Kind of grain.	Area.		Production in 1918.
	1917	1918	
Wheat:	*Acres.*	*Acres.*	*Bushels.*
Winter	89,604	139,277	1,443,018
Summer	6,523	11,490	
German	43,442	66,720	491,724
Rye:			
Winter	38,765	48,185	904,705
Summer	3,291	4,027	
Barley:			
Winter	3,375	2,441	55,887
Summer	15,676	23,079	
Oats	70,619	78,875	95,068
Corn	4,890	9,088	2,701

Potato raising has shown marked progress in recent years, as indicated by the following statistics of acreage and production:

Year.	Acreage.	Short tons.	Year.	Acreage.	Short tons.
1914	114,903	573,201	1917	135,288	1,152,796
1915	121,081	920,429	1918	147,767	a 881,848
1916	134,671	551,155			

a Estimate.

Swiss Watch Industry.

The watch industry is the one which has best succeeded in adjusting itself to the abnormal conditions created by the war. Whereas exports practically stopped during the latter part of 1914, they reached the amount of $40,712,000 in 1917, compared with $35,319,000 in 1913. The total export for 1918 is given as $41,547,000, a figure never reached before. Most of the belligerent countries, with the exception of the United States, placed restriction on the importation of watches, particularly those of precious metal. The large export during 1918 is chiefly due to the huge demand for military watches. The United States ranked third and fourth, respectively, in value of Swiss watches imported in 1915 and 1916 and advanced to first place in 1917 and 1918. [A review of the Swiss watch industry in 1918 was given in Commerce Reports for May 27, 1919.]

Shortage of Raw Materials for Manufacture of Chocolate.

The chocolate factories, which number 22 and employ about 10,000 workmen, were able to survive war conditions despite the reduced imports of raw material, owing to the lively demand both in Switzerland and in the belligerent countries. However, the exports decreased about 20 per cent on account of the shortage of raw material, particularly milk. The exports of chocolate and cacao powder during the past six years were as follows:

Year.	Pounds.	Value.	Year.	Pounds.	Value.
1913	37,676,899	$11,227,500	1916	46,780,543	$15,562,940
1914	35,742,220	10,679,460	1917	34,025,263	12,205,160
1915	60,116,519	17,511,470	1918	22,082,154	10,675,800

The exports of chocolate to the different countries in 1918 were as follows:

Country.	Pounds.	Value.	Country.	Pounds.	Value.
France	12,269,384	$5,649,182	Egypt	1,857,614	$914,785
Germany	3,806,720	2,111,233	Great Britain	753,610	311,895
Greece	2,680,820	1,226,768	United States	8,598	4,467

The increase in exports of chocolate to Greece and Egypt is due to the fact that large orders were placed for the armies of the Allied nations remaining in those countries.

Condensed Milk—Cheese Exports.

The condensed-milk industry also suffered from the shortage of milk, but through factories abroad and contracts with over-sea manu-

facturers the situation was somewhat improved. The exports during the past five years from Switzerland to the various countries were as follows:

Country.	1914	1915	1916	1917	1918
Austria-Hungary	$23,160	$832,800	$730,100	$246,850	$452,200
British India	810,215	611,810	868,890	142,050	19,300
England	3,760,991	3,763,114	2,944,215	229,090	898,415
France	1,273,415	813,690	1,564,850	4,289,620	3,536,340
Germany	61,380	345,090	1,903,140	2,511,510	2,917,970
Spain	673,200	489,835	836,460	573,980	.....
All other countries	2,549,500	2,192,080	2,210,473	777,450	377,322
Total	9,151,861	9,048,419	11,058,128	8,770,550	8,201,547

A large part of the Swiss condensed milk taken by France was for the use of the British Army in that country.

Cheese manufacture in Switzerland was so reduced that its consumption had to be rationed. By decree of May 14, 1918, a cheese card was to be issued from June 1, 1918, allowing the purchase of 250 grams ($8\frac{4}{5}$ ounces) of cheese per head per month. For the season 1917–18 only about one-third of the normal production, or 42,147,080 pounds, was produced.

Switzerland's exports of cheese (including herb cheese) for the past five years were as follows:

Year.	Pounds.	Value.	Year.	Pounds.	Value.
1914	77,468,222	$12,799,953	1917	12,750,874	$4,492,500
1915	74,575,101	14,072,542	1918	2,669,135	1,316,070
1916	47,005,414	12,835,658			

In 1918 two-thirds of the exports went to Germany, one-fourth to Austria, and the remainder to France.

Tourist Industry.

The tourist business, which ranks fourth of Switzerland's industries, received a blow through the war from which it will not recover soon. Even before the war the position of this industry was weakened through overbuilding. The financial situation is shown by the following table:

Season.	Number of companies.	Invested capital.	Percentage of dividend paid.	Number of companies run with loss.
1913–14	20	$5,236,409	4.00	3
1914–15	22	6,966,720	.74	11
1915–16	23	7,086,960	.30	14
1916–17	23	7,086,960	.47	11
1917–18	21	6,797,460	.31	13

Growth of Certain Industries.

Besides the leading Swiss export branches, a few other lines have developed and contribute to Swiss export. Their success arises principally from the advantages of customs tariffs and available raw material and skilled labor. The extent of the growth of these industries

is indicated in the following table showing the increase in the value of exports of certain manufactures since 1914:

Year.	Iron-mongery and hardware.	Toys.	Pencils, etc.	Office furniture and supplies.	Incan-descent mantles.
1914	$241,250	$27,600	$386	$22,200	$42,650
1915	675,000	22,000	1,351	34,930	72,180
1916	984,300	36,670	2,509	40,530	86,650
1917	1,022,900	43,400	28,564	38,000	36,100
1918	1,351,000	66,600	113,870	82,000	131,050

These rapidly growing small industries were not in a position to replace the great losses in the exports of the leading industries of the country. They contributed, however, to relieve the situation somewhat.

Exports to United States from Berne District.

The 1918 exports to the United States from the Berne consular district have increased in value by more than $2,000,000 over those of 1917, owing to the larger exports of the watch industry. Considering the increase of prices of these goods, the quantity exported remains about the same. The principal articles were as follows:

Articles.	1917		1918	
	Quantity.	Value.	Quantity.	Value.
Cacao.....pounds	2,700	$1,104	.....	.....
Cartometers.....dozen	363	2,875	700	$6,035
Cheesecloth	.....	.....	.....	2,370
Cheese-factory supplies	.....	3,412	.....	1,179
Chocolate.....pounds	4,546	1,698	.....	.....
Chronometers	.....	1,640	.....	7,304
Compasses	.....	10,459	.....	14,982
Condensed milk.....pounds	870,825	89,190	.....	.....
Diamonds, cut but not set	.....	17,191	.....	.....
Files.....dozen	4,902	3,530	750	706
Ivory, carved	.....	3,085	.....	1,725
Kirschwasser (cherry brandy).....proof gallons	1,549	7,372	.....	.....
Knit goods, silk, cotton, and wool	.....	220,077	.....	159,235
Machinery:				
Knitting	.....	28,134	.....	51,308
Other	.....	3,772	.....	1,271
Needles	.....	1,385	.....	4,122
Pedometers	.....	1,737	.....	466
Photoclips	.....	378	.....	1,192
Postcards.....number	513,000	2,210	.....	.....
Printed matter	.....	1,052	.....	.....
Saws, jewelers'	.....	607	.....	1,847
Serum	.....	.....	.....	2,461
Shears, pruning.....dozen	143	3,867	65	1,627
Wine	.....	4,011	.....	2,402
Wood, carved	.....	2,682	.....	3,065
Watches and parts	.....	5,387,981	.....	7,559,961
Watch crystals	.....	80,865	.....	80,156
Watch jewels	.....	505,171	.....	421,580
Watch springs	.....	92,390	.....	81,163
All other articles	.....	66,857	.....	22,570
Total	.....	6,544,732	.....	8,428,727

Exports to the Phillippine Islands were valued at $48,628 in 1917 and $105,060 in 1918. There were no shipments to Porto Rico or Hawaii in 1917; in 1918 the exports to these islands were valued at $2,882 and $326, respectively.

GENEVA.

By Consul Lewis W. Haskell, June 30, 1919.

The Geneva consular district, including the Cantons of Geneva, Vaud, and Valais, comprises the greater part of French-speaking Switzerland. It has an area of more than 2,000,000 acres, that is, one-fifth of the territory of the country, and a population of over 650,000.

The manufacturing industry of the district is found more particularly in the various small towns in the Jura Mountains on the border of France. Geneva, naturally, is the important commercial center. Pleasure resorts and tourist centers, such as Vevey, Montreux, and Clarens, are found farther up near the head of Lake Geneva. This section, embracing the beautiful shore line of the lake, and under the shadow of imposing mountains, is ideally suited to the tourist industry, which, however, has been seriously affected by the war. The agricultural section is found in what is known as the plain, a strip of land stretching back from Lake Geneva toward the Jura Mountains and almost entirely included in the Canton of Vaud. Another small area of fertile land is the Rhone Valley, in the Canton of Valais. The principal manufactures are watches and watch parts, for which products this district has a world-wide fame; chocolate, also known internationally, and condensed milk; synthetic perfumes; jewelry; preserved fruits and vegetables; cigars and cigarettes; phonographs and phonograph parts; compasses and other like instruments of precision; and, during the war, munitions. Less important industries are brewing, glass manufacture, and tanning.

State Control of Swiss Economic Life.

The year 1918 marked the climax and the commencement of the decline of Government control over private enterprise and the economic life of Switzerland. No other epoch in the history of this country has presented so many complex problems. Taken all in all, Switzerland withstood very well the difficulties of situations arising out of war conditions. This was especially true of this part of the country. Owing to a commendable spirit of public initiative, the industries were kept going and the food situation was relatively satisfactory, taking into consideration the fact that Switzerland is a country of limited natural resources. Switzerland imports raw materials and exports manufactured products—two processes of commerce rendered very difficult by the war. The State became very powerful in all lines. Bureaus of control were established by belligerents for distribution of raw materials furnished by them. These necessary but cumbersome formalities tended to increase the cost of manufacture, already very high, owing to the high price of raw materials, high wages, and other expenses. Many economic conventions which Switzerland had with belligerent countries were abrogated during the war. The question of the renewal of the treaties is being studied at the present time.

Importation and exportation of all articles grew increasingly difficult as war conditions continued, but the local markets showed a surprising ability to absorb the products of Swiss manufacture. In 1918 the mobilization of the army to put down the general strike had a direct effect upon industry in that it took away about half of the

laborers for a short time. As elsewhere, the differences between capital and labor became more accentuated during 1918.

Importance of Watch Industry.

The most important industry in this consular district is the making of watches and watch parts. A rare degree of excellence is attained in these manufactures. The industry is in a very satisfactory condition at present and prospered during 1918. There was a great increase and development in the manufacture of wrist watches, a large number of which were sold to the armies.

The following table shows the number of watchcases (gold, silver, and platinum) which have been passed upon by the Federal control since 1910:

Years.	Gold cases.	Silver cases.	Platinum cases.
1910	796,695	2,678,583	.....
1911	827,121	2,749,787	.....
1912	829,852	2,982,063	.....
1913	815,033	2,986,631	.....
1914	474,296	1,911,004	650
1915	318,982	1,770,661	1,180
1916	688,497	3,094,663	3,147
1917	630,361	2,892,674	3,064
1918	1,010,037	2,994,015	4,496

The demand for watches and watch parts in this district was brisk during 1918, but the exportation was often greatly delayed on account of necessary license numbers, certificates of origin, etc. Gold was rather scarce, and an effort was made to utilize metal products as much as possible. In November and December, 1918, the Swiss National Bank placed 7,000 kilos (1 kilo=32.15 troy ounces) of silver at the disposal of the industry, thus to a certain extent relieving the scarcity of that material. In 1918 the United States was the largest purchaser of watches and watch parts, with Great Britain a close second, and Germany third. Russia was the principal buyer in 1917.

Jewelry—Chocolate and Condensed Milk.

Jewelry, which is an allied industry of watchmaking, also finds its center in this district. Although for a number of years it has been in a difficult position this industry made great progress during the year 1918, even surpassing pre-war figures. The Geneva factories began the manufacture of gold chains and extensible bracelets, the latter being greatly in demand since the war. The number of pieces of jewelry manufactured and controlled by the Federal Bureau in 1918 was 424,262, as compared with 184,165 in 1917. The local bureau showed a remarkable increase from 73,956 pieces in 1917 to 267,021 in 1918.

Another very important industry of the Geneva district is the manufacture of chocolate. This industry was directly dependent upon the supply of the two principal raw materials, cocoa and sugar. On account of the numerous war rulings these were hard to get during 1918, and although there was a large demand, both domestic and foreign, the amount of chocolate manufactured and exported was much less than in 1917. France is by far the largest purchaser of Swiss chocolate, with Germany second and Great Britain third.

The manufacture of condensed milk, which is an old established industry in this district, was further reduced during 1918 on account of the scarcity of milk, for which there was an unusually large demand, owing to the lack of other food products. The condenseries obtained only 10 per cent of the quantity of milk required, and one company was forced to close its branch in this district. The manufacture of preserves and other alimentary products was also greatly reduced during the year.

Foreign Trade in Lumber.

During 1918 there was a large amount of lumber manufactured in the Canton of Vaud, in this district, for the Allied Armies, especially for the American Army. Switzerland was an importer of lumber before the war, but the exceptional conditions and very high prices made it profitable to cut a part of the Swiss forests to make barracks for the armies. The following table shows the quantity and value of the lumber imported into and exported from Switzerland during the past seven years:

Years.	Imports.		Exports.	
	Metric tons.	Value.	Metric tons.	Value.
1912	439,400	$6,495,029	58,800	$634,584
1913	372,200	5,070,303	69,300	792,072
1914	275,400	3,114,441	63,300	726,066
1915	114,700	1,177,403	205,300	3,776,431
1916	98,800	1,375,897	481,300	11,577,298
1917	48,800	784,738	377,300	12,330,384
1918 [a]	15,900	370,174	180,600	8,304,983

[a] Figures for 9 months.

The value of exports of all wood products increased from 5,700,000 francs ($1,100,000 at normal exchange) in 1913 to 80,100,000 francs ($15,459,000) in 1917. The establishment of a central American Army purchasing bureau in Berne in 1918 had a direct effect in that it made uniform and reduced the enormous prices formerly paid for forest products. The demand from the warring countries greatly aided this industry, which was very slack before the war.

War Conditions Affect Various Industries.

War conditions likewise aided the glass manufacturers in this district by keeping out foreign competition. The two or three important factories prospered during 1918. A new branch in this industry is the manufacture of watch crystals, for which the demand was greater than the supply.

Soap making is another industry for which Switzerland is almost entirely dependent on foreign countries for raw materials. The price of soap increased from 88 francs a quintal (8 cents a pound) before the war to 360 francs (32 cents a pound) in 1918.

In 1918 the machinery manufacturers continued to prosper, largely owing to the lack of German competition, which was formerly brisk. Machine tools and mechanical instruments are important products. Other articles manufactured in this district are phonographs and phonograph parts, in the Jura Mountains; small instruments of pre-

cision, at Vallorbe, a small town near the French border; and electric meters, barometers, and compasses.

The brewery business has been hard hit by the war and in 1918 paid a very small dividend on the average, only between 3 and 4 per cent.

Coal Mines Opened.

One of the great handicaps to Swiss industry has been the lack of coal and other natural resources within the country, thus making the industries in a sense tributary to foreign countries. The coal problem was probably the one which was most acutely felt during the year 1918. The extremely high prices paid in 1917 were practically doubled in 1918, and despite this fact there was a great shortage. This resulted in the opening up of the few mines that are in the country. One abandoned enterprise at Sion, in this consular district, was reopened and worked during the year. The cost of getting out the coal is very high and the quality very poor, but the product is now used on the Federal Railroads. There is no other mining in this district.

Increased Difficulties of Transportation.

The difficulties of both the rail and water transportation were greatly accentuated during 1918, owing to the high price of coal and the difficulty of importation. In order to secure the necessary coal, which came almost entirely from Germany, the Federal Government was forced to enter into a very disadvantageous contract with that country, in accordance with which coal was exchanged for foodstuffs. Despite the difficulties of importation, the traffic was quite regular during the early part of the year. However, after the German defeat in the fall of 1918, that country was no longer able to fulfill its contracts for the delivery of coal and Switzerland was forced to turn to the Entente Governments. The railway services for the closing months of the year were further reduced and barely served the ordinary demands of freight transportation and a minimum movement of passenger trains. At the end of the year a very limited number of trains were running on an extremely slow schedule, and there was no passenger service whatever on Sundays. The shortage of coal affected in the same manner the passenger service of the steamers on Lake Geneva.

The receipts of the Federal Railroads in 1918 amounted to $46,182,970 and the expenditures to $40,950,740.

General Agricultural Conditions.

Agriculture in this district is principally confined to the Canton of Vaud, which has a productive surface of 2,783 square kilometers (1,075 square miles), as compared with 229 square kilometers (88 square miles) for the Canton of Geneva, and 5,224 square kilometers (2,017 square miles) for the Canton of Valais, a great deal of which is mountainous and unproductive. The Canton of Vaud is the second in importance in Switzerland from an agricultural standpoint and has the largest surface in vineyards of any of the cantons. The farms are small in size judged by American standards, and the farming is more or less of a general nature. Although nearly every crop may be grown with some success, records are seldom established in

any one line. The fertility of the soil should be ranked as medium, and the climate is almost temperate for the lower levels of this district.

The four most important crops of this district are, in the order named, hay, grain, wine, and potatoes. Two other important phases are dairying, with cheese and butter making, and the raising of beef cattle, horses, and hogs. Except for the hillsides bordering Lake Geneva, which are steep and impracticable for general farming and which are peculiarly fitted for vineyards, because of the sunny exposure, there is little specializing in the farming line done.

Although the farming is intensive, owing to the large rural population and the small amount of productive land in Switzerland, many modern improvements and much modern labor-saving agricultural machinery are lacking. For instance, cream separators are not in general use, and there are no milking machines. The same is true in a general way of machinery for harvesting hay, grain, and potatoes.

Crops Affected by Dry Season.

The year 1918 was an exceptional one for agriculture in this district. The production of hay was one-third of that of 1917. This reduction was caused by the increase of acreage for grain, which consequently cut down the acreage in hay, and the unfavorable dry season, which matured the hay while it was still short. This had a similar effect upon all pasture and root crops. Another important crop adversely affected by the dry season was potatoes. Although the area cultivated (about 20,000 acres) was slightly increased over 1917 the yield per acre was nearly 30 per cent less, averaging less than 150 bushels, whereas the normal crop for the district is 200 to 210 bushels to the acre. Owing to the importance of the food question, the Department of Public Economy arranged for the control and partition of the 1918 crop, which was requisitioned on September 6 and a certain quantity reserved for the producers and for seed for the following year. The producer was allowed a surface of 2 ares (about 0.05 acre) for each person in his family and the nonproducers 90 kilos (198 pounds) of potatoes per person, to last until the 1919 crop. The price was fixed at 25 francs per 100 kilos ($1.30 per bushel).

The dry season was favorable for the grain and vineyards, and there were record crops in 1918. The grain was exceptionally heavy, as it is nearly all planted in the fall and was well matured before the dry season began. The grain in general was 30 per cent heavier than in 1916 and 40 per cent heavier than in 1917. This is partly due to the large increase in acreage over the preceding year, owing to the scarcity of breadstuffs in the country and the consequent agitation for intensive farming in that line. Each farmer as a rule planted a small field of grain, which generally is harvested by hand. The average size of the grain fields in this district was 0.66 acre in 1917. Of the grain crops, wheat easily ranks first in importance, and 97 per cent of this is of the fall variety. After wheat, oats is the most important, and a mixture of wheat and rye ranks third.

Vine Growers Have Prosperous Year.

Vine growers enjoyed the best season in years, both from the point of view of production, which was the largest in 10 years and more than double the output of either 1916 or 1917, and from the

point of prices, which were on an average of 25 per cent higher than last season.

It was the remarkable weather conditions that caused the record wine production, keeping down the vine diseases, which are particularly fatal during wet seasons. The dry weather was especially fortunate, as it was impossible on account of war conditions to import artificial manures, such as phosphates and sulphates, and compounds of copper so necessary to combat the plant diseases. The future of the vineyards of this district is problematical. The surface planted (about 12,355 acres in 1918 for the Canton of Vaud) has been gradually decreasing during the past 10 years. The peasants find great difficulty in combating the three great pests—phylloxera, mildew, and oidium. About one-fourth of the vines have been grafted on certain American varieties which are nearly immune to disease, but even these become infected after a time. Before the war the Swiss wine industry was slowly yielding to foreign competition and although the war has improved the situation considerably this competition will again have to be met when conditions become normal.

Decrease in Live Stock.

There has been a general decrease in the live-stock herds, particularly during the latter part of 1918, owing to the amount of slaughtering done. This was caused by the high price of meat, the extreme shortage of the hay crop, and the dry pastures, also by the impossibility of importing feeds, such as linseed meal, to carry the stock through the winter. The number of cattle has probably decreased 15 per cent the past two years. Up to the present, however, the standard of the herds has not been greatly impaired, as it is the poorer stock which has been slaughtered. Because of the scarcity of food and the necessity of supplying the population with fresh milk and cheese, only a small percentage of the milk cheese manufactured in peace times was produced in 1918. These dairy products are sold by card in very small quantities indeed for a country which is noted for its butter and cheese.

It may be said, in a general way, that for the farmers of this district the year 1918 has been one of prosperity, notwithstanding the high prices of labor and the consequent cost of production. There was an immediate market, at exceedingly high prices, for all agricultural products. The peasants of this district are a conservative class, and their thriftiness is reflected in the large deposits in savings banks.

Banking and Finance.

Geneva is one of the three important banking centers in Switzerland, Zurich and Basel being the other two. Banking institutions number over 50, and many are international in their scope of operation. Among the financial institutions at Geneva one finds a number of investment companies, some of which make a specialty of American investments.

The operations of the stock exchange of Geneva have been extensive. Naturally during the war the character of business was affected by the new conditions. One feature which may be mentioned was the large volume of German and Austrian money dealt in.

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Taxation has been greatly increased, and the Cantons composing this district assumed their share of the burden. The mobilization of the army meant a great expenditure. The Federal indebtedness increased from 63.10 francs ($12.18) to 376.15 francs ($72.60) per capita. It is observed, however, that even with this increase the rate is low compared with that of most countries.

Foreign Trade—Shipments to United States.

Federal statistics showing in detail the foreign and domestic trade are not available for a particular consular district, not being segregated by cantons. This district has had its full share in the commerce of Switzerland, both domestic and foreign. In many respects it was not a normal commerce but was directly affected by the war. Imported raw materials will be the keynote for the coming year, as distinguished from war years. Then, too, a volume of manufactured articles will now flow into Switzerland as soon as tonnage and credits will permit. This district, as other districts, needs a great quantity of manufactures, the importation of which has been so restricted, especially during the last two years of the war.

During 1917 and 1918 the leading articles invoiced in this district for the United States were as follows:

Articles.	1917	1918	Articles.	1917	1918
FROM GENEVA.			FROM LAUSANNE.		
Clocks	$7,782	$301			
Compasses	3,603	2,552	Condensed milk	$73,224	.....
Cotton embroideries	2,267	.....	Files	50,279	$44,408
Diamonds, cut	10,107	.....	Household effects	4,467	333
Drugs	5,385	68	Musical instruments	10,815	94,101
Enamel for dials	2,020	536	Paper wrappers and labels	.....	2,790
Fishing materials	4,080	4,620	Perfumes, synthetic	31,340	.....
Jewelry	4,911	1,733	Phonographs and parts	306,048	141,549
Paintings	3,860	.....	Stones, semiprecious	9,326	3,237
Perfumes, synthetic	149,071	154,839	Watches, complete	4,794	.....
Personal and household effects	826	7,542	Watch movements	41,332	.....
Scientific apparatus	.....	2,435	Watch jewels	164,574	168,756
Silk ribbons	6,847	.....	All other articles	2,986	474
Stones, imitation	264,880	115,384			
Time detectors	5,321	4,511	Total	702,185	455,639
Watches, complete	519,964	580,278			
Watch crystals	27,779	25,370			
Watch jewels	103,490	112,666			
Watch movements	431,018	592,982			
Watch parts	116,945	121,031			
All other articles	6,997	1,335			
Total	1,677,183	1,728,193			

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